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ABSTRACT

A project developed through Wallace State Community College (Alabama) united three corporations, two adult basic education programs, a technical college, two support/education programs, a work program for older adults, and three service organizations in a partnership to develop a model for providing workplace literacy training. Project LEARN (Literacy, Employment, Advancement, Readiness Network) staff conducted needs assessments at several sites, administered intake forms, and conducted 2-hour classes held twice weekly for four 11-week cycles. Classes were open entry/open exit; approximately 434 employees participated on a voluntary basis. Pretests/posttests showed an increase of 25 percent in students' basic skills, and 90 percent of the workers improved 43 percent in job-specific skills. Adult learners displayed very positive attitude changes in self-esteem, personal goals, and reaction to Project LEARN. Only 25 percent of the students performing at ninth-grade level or better passed the high school equivalency test (compared with a goal of 90 percent); however, in some cases this was not a priority for students. At least 32 percent of the participants are involved in follow-up education. (Five appendixes include a list of project forms, curriculum structure, course outline, lists of the contents of employee profiles and project files, and comments from an industry manager.) (KC)

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FINAL EVALUATION REPORT

PROJECT L.E.A.R.N.
(LITERACY, EMPLOYMENT, ADVANCEMENT, READINESS NETWORK)

A NATIONAL WORKPLACE LITERACY PROJECT

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January 16, 1992

CE 060 324

TABLE OF CONTENTS

- I. Background of National Workplace Literacy Grant
- II. Overview of Project L.E.A.R.N.
 - A. Project Structure
 - B. Review and Comparison of Objectives
 - C. Evaluation Results
- III. Responses to Key Issues
- IV. Appendices
 - Appendix A.....Workplace Literacy Profile
 - Appendix B.....Curriculum Structure
 - Appendix C.....Curriculum Outline
 - Appendix D.....Operational Procedures
 - Appendix E.....Manager's Comments

EXECUTIVE SUMMARY

Project L.E.A.R.N.
PR AWARD # V198A00218

I. BACKGROUND OF NATIONAL WORKPLACE LITERACY GRANT

Wallace State Community College received funding for a National WorkPlace Literacy Project for \$500,811--\$355,334 Federal funding and \$145,477 institutional funds--beginning July 1, 1990. This project united business, industry agencies, and education in a partnership to develop a model for providing workplace literacy training.

The Project partners included:

Wallace State Community College;
Opelika State Technical College;
Americold Compressor Corporation;
Cullman Electric Cooperative;
Ampex Recording Media Corporation;
North Central Alabama Adult Basic Education Program;
East Central Alabama Adult Basic Education Program;
Green Thumb, Inc.;

Helping Organizations included:

United Way, Inc. of East Central Alabama;
Lions Club;
Kiwanis Club;
Homemakers Employment and Learning Program;
Displaced Homemakers Program.

**Literacy Employment Advancement Readiness Network
Project LEARN
PARTICIPANT RELATIONSHIP**

Workplace Literacy Partnership Members

Educational

Wallace State
Community College

Opelika State
Technical College

Role: Coordinate all educational and operational functions of the project.

Services: Develop literacy audits. Develop course content and curriculum. Provide instruction for educational improvement component. Student tracking and follow-up. Testing. Scheduling of services. Support services: child care reimbursement, transportation, additional career and educational counseling. Purchase and install instructional equipment. Develop instructional material. Conduct project evaluation.

Site for: Additional counseling. Both education components providing facilities and equipment for operation of the project.

Industrial

AMPEX
Cooperation

Americold Compressor
Cullman Electric

Role: Insure that the educational functions are directly related to the workplace need.

Services: Provide access to workers. Assist in communications with participants. Provide office space and use of equipment for counselors and instructors. Assist in the development of literacy audits and institutional curriculums. Facilitate in-house literacy audits, counseling and educational services.

Site for: Student recruitment. Literacy audits. Project counseling. Limited instructional sessions.

**Adult Basic
Education**

ABE of North Central
Alabama

ABE of East Central
Alabama

Role: Provide instruction in the Basic Literacy Training Component.

Services: Assist in administering the literacy audits. Assist in the development of course content to reflect job specific content. Provide specific instruction for non-high school degree participants.

**Work Program for
Older Adults**

Green Thumb
Incorporated

Role: Provide semi-skilled workers to support the operations of the project.

Services: Clerical assistance. Tutorial services. Lab assistants for learning lab.

Literacy Employment Advancement Readiness Network
Project LEARN
PARTICIPANT RELATIONSHIP

Workplace Literacy Helping Organizations

United Way	Lions Club	HELP & Displaced Homemaker	Kiwanis Club
United Way of Cullman County	Lions Club of Cullman County	HELP Program (WSCC)	Kiwanis Club of Lee County
United Way of Lee County	Lions Club of Lee County	Displaced Homemaker Program (OSTC)	
<u>Role:</u> To provide tutorial assistance to adult learners. <u>Services:</u> Recruit, identify and train tutorial volunteers. Provide tutorial services. Schedule tutorial services	<u>Role:</u> To assist in removing educational barriers caused by poor eyesight. <u>Services:</u> Vision care to qualified individuals including glasses, surgery, testing and follow-up treatment.	<u>Role:</u> To provide access to additional support services for the enrichment of personal and professional lives of adult learners. <u>Services:</u> Provide information of the purposes, functions and services of supporting agencies and organizations.	<u>Role:</u> To provide promotional activities to support the project. <u>Services:</u> Solicit and receive contributions to fund additional services to adult learners and promote project activities among various civic and community organizations.
7			8

II. OVERVIEW OF PROJECT L.E.A.R.N.

PROJECT STRUCTURE

Upon completion of a needs assessment and an informal literacy audit conducted at each site, the industrial management team, instructor, and counselor evaluated all information for start-up. Registration, intake forms, and pre-test (ABE Assessment Inventory) were administered for volunteer participation. Classes for employees were two-hour sessions held twice weekly for four 11-week cycles. All three shifts were accommodated where applicable. Two-week cycle interims were designed for processing cumulative cycle results, adjustments for cycle improvements, and recruitment activities.

Fifty unemployed students (25%) were served at the WSCC/GED Tutorial Lab Monday--Thursday, day/night classes with open entry--open exit enrollment.

Other major programmatic developments which successfully aided in the operation of the project were as follows:

(Appendices A--D)

- A. Workplace Literacy Profile
- B. Curriculum Structure
- C. Course Outlines
- D. Operational Procedures

REVIEW AND COMPARISON OF PROJECT OBJECTIVES

The outcome measures of project objectives are listed below:

1. Pre/Post test locator will verify an advancement of at least 25%.

This objective showed a 30% increase in Basic Skills component. The area with greatest gain was Math, the most requested area of study by participants.

2. 90% of non-high school graduates performing at 9th grade level or above will successfully complete the GED test.

This objective showed 28% of 9th grade (or above) students receiving a GED. In several instances, a GED was not the student's priority for program participation.

3. Pre/Post test of literacy audit will verify that 90% of high school graduate production workers gain 25% in job-specific skills (Literacy in Context) component.

This goal indicated an increase of 43%. The majority of the population in Objective 2 were not academically prepared for "Literacy in Context" component.

4. Surveys of employee supervisors will demonstrate appropriate abilities and attitudes for job advancement. (#4 & 5 were not included in summative data due to partial participation and applicability of objectives).

5. Workplace personnel will verify increase in learners' job performance.

6. Survey of adult learners will verify positive attitude changes in self-esteem, personal goals, and reaction to Project LEARN.

This objective result expressed a great deal of satisfaction from Project LEARN participants. (see page 7)

7. Survey of adult learners will verify that 30% are participating in follow-up training.

This objective reported 32% involved in follow-up education from two sites. The utility partner was not included in this since a Commercial Driver's License was the goal within itself. The total program was culminated with mass testing administered by State Department of Public Safety. (see results on Summative chart)

At this point and time, follow-up training is being discussed with the utility company for spring sessions. College credit or Training for Industry classes are being developed with WSC in the areas of communication skills and personnel management.

Data from one participating industry, the Ampex Corporation, could not be accurately combined with the following project results because of the use of different assessment instruments selected by that particular industry. The final data collected will be addressed in the external evaluation by Dr. Marilyn Beck. It is important to note that South Alabama served 240+ of the projected 400 total number of participants; North Alabama served 194, giving Project LEARN a combined total of approximately 434.

On the following charts other cumulative data will include:

1. Number of participants
2. Number of participants completing project
3. Number of high school graduates
4. Number obtaining GED
5. Number in follow-up training
6. Basic skills increase
7. Literacy in Context increase
8. Attendance percentages
9. Characteristics of participants

: SUMMATIVE DATA
NATIONAL WORKPLACE LITERACY
Project L.E.A.R.N.
Wallace State College

	AMERICOLD				CULLMAN ELECTRIC CO-OP				UNEMPLOYED				TOTAL	TOTAL
	CYCLES				CYCLES				CYCLES				NUMBERS	PERCENT
CYCLE RESULTS:	1	2	3	4	1	2	3	4	1	2	3	4	#	%
NUMBER OF PARTICIPANTS	25	21	21	16	24	20	17	N/A	15	13	12	10	194	
NUMBER COMPLETING COURSE	21	17	9	8	20	15	14	N/A	14	11	11	8	148	
NUMBER OF HIGH SCHOOL GRADUATES	17	14	3	5	24	20	17	N/A	N/A	N/A	N/A	N/A	100	
NUMBER OBTAINING G.E.D.	0	0	1	1	0	0	0	N/A	2	1	4	3	12	
NUMBER IN FOLLOW-UP TRAINING	7	8	1	2	(SEE EXECUTIVE SUMMARY)				6	4	2	2	32	
BASIC SKILLS INCREASE	26	50	25	24	(25%)		N/A	N/A	(SEE CED RESULTS ABOVE)					30%
LITERACY IN CONTEXT INCREASE	N/A	30	28	24	(70%)		97	N/A	N/A	N/A	N/A	N/A		43%
ATTENDANCE PERCENTAGE	66	74	86	61	68	66	82	N/A	60	60	60	60		68%

CHARACTERISTICS OF PARTICIPANTS
NATIONAL WORKPLACE LITERACY
Project L.E.A.R.N.
Wallace State College

	AMERICOLD				CULLMAN ELECTRIC CO-OP				UNEMPLOYED				TOTAL	TOTAL
	CYCLES				CYCLES				CYCLES				NUMBERS	PERCENT
CYCLE RESULTS:	1	2	3	4	1	2	3	4	1	2	3	4	#	%
FEMALE	18	10	12	8	0	0	0	N/A	13	11	10	6	88	45%
MALE	7	11	9	8	24	20	17	N/A	2	2	2	4	106	55%
AVERAGE AGE	41	44	35	40	35	38	36	N/A	42	40	44	40		39.5yr
WHITE	24	20	19	15	23	19	16	N/A	12	13	11	8	180	93%
BLACK	1	1	1	0	1	1	1	N/A	0	0	0	0	6	13%
ASIAN	0	0	1	1	0	0	0	N/A	1	0	1	1	5	12.5%
HISPANIC	0	0	0	0	0	0	0	N/A	2	0	0	1	3	11.5%

PERCENTAGE OF MINORITIES SERVED BY THIS PROJECT EXCEEDS THE PERCENTAGE OF MINORITY POPULATION WITHIN THE COLLEGE SERVICE AREA.

III. RESPONSES TO KEY ISSUES

Reviewing the past 18 months, many pieces of the puzzle now fall into place. A pilot program is always a challenge even if policies and procedures are implemented securely from the onset. Initially, Project LEARN encountered several hurdles, but in-house personnel changes allowed the program to proceed according to the grant proposal.

One issue observed by Project LEARN was the amount of involvement from industrial management and on-line supervisors. Two of the industrial partners demonstrated strong commitment throughout the project affording a clear understanding of expectations, roles, and responsibilities. However, one industry was never highly committed (refer to FY91 NWPL Director's Conference, Item 1,2) due to frequent turn-over and communication gaps between upper/mid/first-line management. Another important hinderance was the fact that many on-line supervisors needed to participate in Project LEARN themselves, consequently giving no encouragement to employees.

Thanks to NWPL, the extension that Project LEARN received really proved to be beneficial at this particular site. Project LEARN was able to establish support for the project and awareness of the need for continuation of classes with the NEW company president. As a result, educational improvement classes covered in Project LEARN's curriculum, as well as computer and technological classes would be taught on-site by Wallace State College. Aside from two on-going computer classes, the industry has presently referred non-readers (passed over for job advancement) to the college ABE--GED tutorial lab.

Upon completion of the extension period, WSC was empowered by the industry to design a Pre-Employability Orientation for one week of classes and testing prior to hiring new employees. A management team would then select new employees from results of the orientation. The president's contention was that pre-employment investment up-front would prove more cost-effective in the long run rather than the costs of employee turnover and training of replacements. The company could hire workers who were more highly skilled, thereby yielding an improved retention rate and company loyalty. A 60-day retention rate study would be conducted after the employment process.

Overall, the accomplishments achieved at the site during the extension period proved to be the catalyst for the purpose and goals of Project LEARN to be continued without Federal funding.

Another issue which deserves much concern was the total assessment of increased productivity based solely on Project LEARN's program. Project LEARN's pre/post tests (ABE Inventory Assessment and "Literacy in Context") represent actual figures; however, applying these results alone as substantive measurement of increased plant productivity was not feasible without more extensive follow-up. The many unforeseen variables that came into play over the 18-month period didn't leave a clear analysis of Project LEARN's cost-effectiveness on the bottom line.

Referring to unforeseen variables, Project LEARN also experienced some attendance drops during the last two cycles at the manufacturing sites due to the Persian Gulf War, management

turn-overs, lay-offs, contract/labor negotiations, summer vacations, and excessive overtime. (Appendix E). Targeted retention activities lacked effectiveness during these interruptions. These circumstances were frustrating from Project LEARN's perspective as all aspects of the program were affected-- students, goals, and outcomes.

The most important consideration of Project LEARN was providing an appropriate education for workplace participants. Overall, the employees at each site demonstrated positive attitudes, provided constructive feedback, and supplied the necessary data to evaluate the project. Most were very dedicated to the program and recognized improved competence, adaptability skills, and personal development. The following percentages reflect the cumulative student satisfaction results:

- 77% felt very good about the amount of time given for them to spend in the lab.
- 92% felt the availability of counseling services had been very good.
- 90% felt that the instructional assistance in the lab had been very good.
- 89% felt that working at their own pace had been very good.
- 69% felt that the scheduling of days for classes and lab time had been very good.
- 83% felt that the location and size of the classroom had been very good.
- 88% of the students said they planned to continue with some type of education/training classes.

Project LEARN was impressed with participant attitude and attendance based totally upon volunteer participation. The utility partner demonstrated that "incentive" participation, matching hour per hour, would have further enhanced enrollment and yielded a higher attendance rate. It is difficult to reach many "reluctant learners" who are very vulnerable to having their illiteracy exposed in the workplace. Project LEARN has observed that the employees for whom the program is designed are the hardest to enroll. However, strong management support and incentives are the key to pull these employees into the program.

In sum, Project LEARN experienced a challenging, valuable, and successful year+ in several industrial settings. This analysis of Project LEARN has provided much needed documentation for future growth. Although Project LEARN can attest to the positive impact NWPL has made in the workplace, more effective strategies are being sought to provide NWPL with more targeted, measurable outcomes of literacy training and productivity needed to evaluate the NWPL Initiative and its funding.

IV. APPENDICES
(A--E)

APPENDIX A

WORKPLACE LITERACY PROFILE

1. Registration/Entrance Survey
2. Assessment Inventory (Pre/Post Test)
3. Pre-Test Analysis Key
4. Pre-Test/Post-Test Assessment Levels
5. Individualized Educational Program Assessment Review
6. Individualized Educational Program
7. IEP Assessment Prescriptions
8. Communication/Self-Development Skills Chart
9. Employee Log-In Forms
10. Attendance Record Form
11. Employee Transfer/Withdrawal/Completion Form
12. Employee Continued Placement Form
13. Employee Exit Evaluation Form
14. Counselor Questionnaire
15. Counselor Bi-Quarterly Observation Form
16. Instructor Schedule
17. Counselor Schedule
18. Green Thumb Schedule
19. Counselor Class Observation Comments
20. Instructor Class Observation Comments
21. Cycle Cumulative Results Information
(See Cycle Folders)

APPENDIX B

CURRICULUM STRUCTURE

An open environment format will be implemented to accommodate both educational components of the project and the varied job descriptions of employees.

The individualized approach will be monitored through the Individualized Educational Plan by varying the levels of skills, pace of instruction, and levels of performance for each employee.

Open environment education in the workplace will allow the employees to learn at their own rate and learning modality utilizing individual learning systems, computer aided instruction (CAI), and self-instructional modules. Employees will build on individualized sequences of learning modules according to pre-tests, the activity/program/lesson, and/or post-test procedure.

The organizational features of this open environment approach provides for many diversified levels of learning that require tutorial and/or self-instructional lessons in basic skills such as computational skills, occupational areas, reading, writing, and language.

Educational Improvement training will be provided through group activities improving communication skills, aesthetic and critical thinking skills, decision-making abilities and possibly creative approaches to problem solving in the workplace.

The curriculum structure will provide a learning lab as an instrument to provide employees with a self-directed learning experience with immediate reinforcement. A range of materials and resources are made available from workplace materials to ABE skills programs.

The evaluation of Project L.E.A.R.N. curriculum is reviewed and updated for continuous program improvement at the end of each of the four 11-week cycles. Input from employees, supervisors, and industrial management will improve customized curriculum at each worksite. Compilation data of each cycle will aide in curriculum improvement, organizational operation, and quality of program through pre-and post-measures.

APPENDIX C

CURRICULUM COURSE OUTLINE

Getting to Know the Computer:

An introduction to computers including a brief history, the characteristics of computers, and the effect computers will have on industry in the future. Identification of all system components, such as monitor, keyboard, drives, etc., and their purpose will be included. Participants will work through the PC tutorial followed by "hands-on" practice using assigned software.

Basic Math Skills for the Workplace

The materials covered will be determined by the level and ability of individual needs. The developmental sequence of math concepts will range from basic operations to basic algebra. Job-related math will be emphasized in small group activities.

Basic Reading/Language skills

An individualized reading and language program focusing on areas of basic vocabulary, literal and inferential comprehension, grammar, spelling, and punctuation, will be prescribed on pre-measurement skills. Sentence and paragraph composition is practiced using work-related job descriptions.

"Literacy in Context" Component

Participants study techniques to improve their knowledge of industrial terminology and its applications through oral and written group activities and discussions. Preparations of job-related policy manuals and technical materials are utilized and designed to improve participants' communication, understanding, and performance on the job.

Motivation in Problem-Solving

Effective problem solving is a comprehensive process in which the participant makes critical judgements based upon logic and reasoning:

- Discovering a Problem
- Defining a Problem
- Drawing Conclusions
- Presenting Conclusions, or
- Plan of Action

Self-Development Skills

This curriculum area offers participants basic social science concepts in developing self-esteem. The cycle lends itself as a "mini-society" with opportunities to grow and work with peers, adults, and systems. Self-awareness, work-readiness, interpersonal communication, economics, nutrition/health/safety, and creative self-expression through job-related art are covered in planned activities and incidental teaching throughout the program.

Integrated Curriculum

Problem Solving/Creative Thinking
Communication (speaking, listening, writing)
Self-Development
Group Effectiveness

Additional anticipated results of this integrated curriculum are increased loyalty to the company, more enthusiasm for work, and increased productivity.

APPENDIX D

EMPLOYEE PROFILE

Order of Individual Employee Profile

1. Transfer/Withdrawal/Completion Form
2. Employee Registration/Entrance Survey
3. IEP Assessment Review (signature plus any support services documented)
4. Individualized Educational Program's
5. "Literacy in Context" (pre/post test or other relevant information)
6. Pre/Post Test (TABE copies)
7. Student Assessment Prescription (Check List)
8. Any other standardized individual progress records (Weekly student work accumulated should be kept in separate work folders)

APPENDIX D

CYCLE FOLDERS

Separate Folders for Numbers 1-5
Combine Numbers 6-11 in One Folder

1. Pre-test Results
2. Post-test Results
3. Attendance Sign-in Forms
4. Counselor's Questionnaire/Comments
5. Student Exit Evaluation
6. Copies of Instructor Weekly Report (and/or work schedule)
7. Copies of Counselor Weekly Report (and/or work schedule)
8. Cycle Lab Schedule
9. Recruitment Activities Report
10. Tutor/Lab Assistants Records
11. Curriculum Outline

APPENDIX D

CUMULATIVE RESULTS FOLDERS (each cycle)

1. Enrollment Summary / Attendance Percentage
2. Participants in Components:
 - A. Basic Literacy (number obtaining GED)
 - B. Educational Improvement
3. Pre/Post Test Percentage Increase
4. Pre/Post "Literacy in Context" Percentage Increase
5. Follow-up Training Summary
6. Employee Exit Evaluation Results (%-Counselor)
7. Counselors
8. Instructor Cycle Summary/Comments
9. Project Director

PROJECTED SUMMATIVE RESULTS FOR TOTAL PROJECT

1. Enrollment Summary /Attendance Percentage
2. Participants In Both Components
 - A. Basic Literacy (# obtaining GED)
 - B. Education Improvement
3. Pre/Post-Test Results Percentage Increase (all participants)
4. Percentage increase in INDUSTRIAL LITERACY COMPONENT
5. Percentage of employee Follow-up Training
6. Employee Evaluation
7. Unemployed: Open Entrance/Exit
 - Total # Participants/Attendance Percentages
 - Number of students gaining employment
 - Number of students in technical training (WSCC)
 - Number of students obtaining GED
8. Industrial Personnel Manager's overview of Project LEARN
9. Literacy Audit
10. Curriculum Outline
11. Project Calenders
12. Policies and Procedures Manual



AMERICOLD

2340 2nd Avenue, N.W. • Cullman, AL 35055 • (205) 734-9160 • FAX (205) 739-021

December 3, 1991

Ms. De Dickey
Project E.A.R.N.
Wallace State Community College
801 Main Street N.W.
Hanceville, Alabama 35077

Dear Ms. Dickey:

I am writing this letter to explain the special circumstances of Americold's operation during the summer and fall of 1991 that led to reduced participation and absentee problems for Project E.A.R.N.

First, management was forced to delay our two week vacation and maintenance shutdown from July to October. To allow as many employees as possible to take vacation during the summer months, we then hired about 30 temporary workers then and scheduled vacations throughout the summer. This unusual situation hurt E.A.R.N. attendance because of the additional scheduled vacations, and because several attendees were forced to change scheduled shift hours to cover for other employees' vacations.

Secondly, during this time period we increased our work force to increase our output forty percent. Our policy of allowing employees to bid for open positions causes each opened job to create up to five job movements. This massive turnover in job assignments hurt E.A.R.N. attendance when shift changes were involved.

Finally, due to sudden increases in our customer requirements, we were forced to work about two Saturdays a month during this period. This excessive overtime limited employees' time for family and outside activities, and most probably adversely affected participation in E.A.R.N.

John B. Carlock
Plant Manager

JBC:mb
cc:File

White Consolidated Industries, Inc.